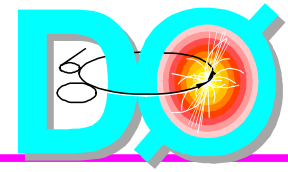# Information Logging for D0
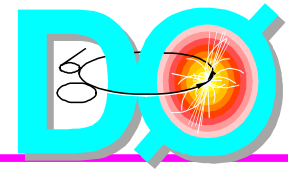
Geoff Savage

Overview

- **Information logging definition**

- **Information flow**

- **Logging software**
  - ◆ **ZOOM error logger**
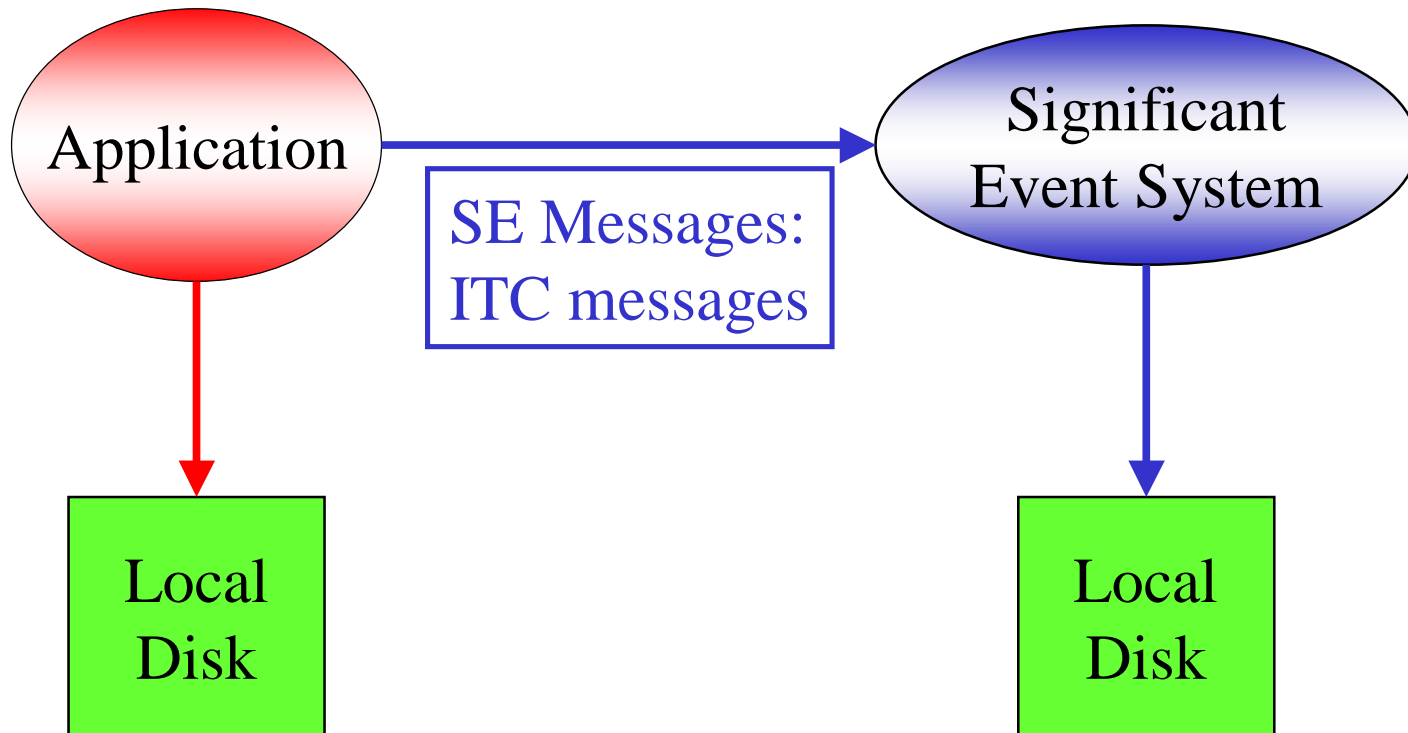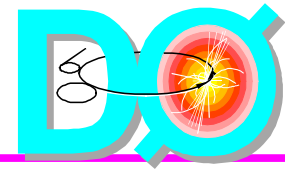 - ◆ **Significant event system**

- **Architecture**

Information Logging

- **From an application pass information to a programmer or user**
  - ◆ **Testing/debugging**
    - ■ **Software functionality**
    - ■ **Data problems**
  - ◆ **Significant events**
    - ■ **Alarms**
    - ■ **Status**
- **Information destinations**
  - ◆ **File and/or Display**

Information Flow

Application → Significant Event System

SE Messages:
ITC messages

Application → Local Disk

Significant Event System → Local Disk
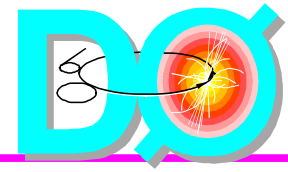
Local Disk: attached to the host on which the application is running

ZOOM Error Logger
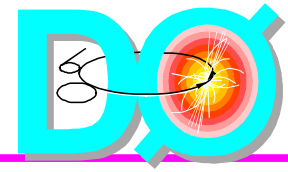
- **Highlights**
  - ◆ **Uniform formatting**
  - ◆ **Multiple destinations**
  - ◆ **Throttling**
  - ◆ **Appearance**
  - ◆ **Statistics**
- **Currently single process (application)**
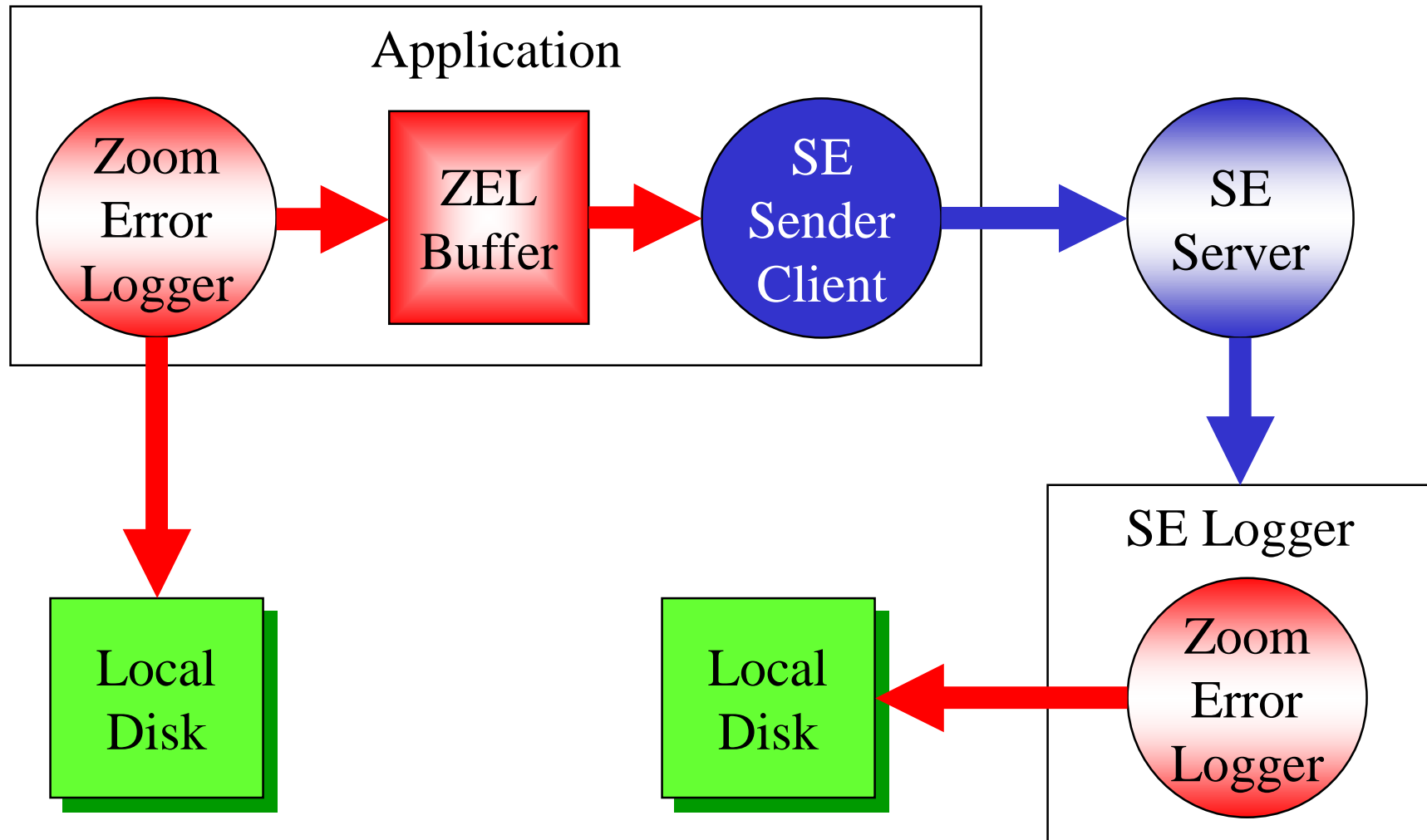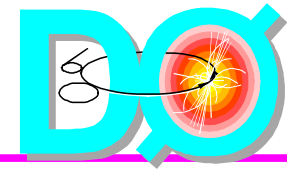- **Extend to multi-applications???**

Significant Event System

- **Messages to archive file**
  - **Informational: started, paused, stopped, …**
  - **Alarms: warning, severe (pause run), …**
- **Display for user interaction**
- **Logger application**
  - **ZOOM error logger**
- **Server uses local log file for debugging**
  - **ZOOM error logger**

Logging Architecture

Collecting Messages

Application

Zoom Error Logger

Application

Zoom Error Logger

Application

ZEL Buffer

SE Sender Client

- •Works if all apps on same host.
- •Apps on different hosts requires integration of network messaging.